February 9, 2012 Project No. 1113720019-5000

Thomas Kabloona, Chair
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

RE: VALE EXPLORATION CANADA INC. WATER LICENCE APPLICATION

Dear Mr. Kabloona,

Vale Exploration Canada Inc. (Vale) is pleased to submit this water licence application for the Melville Project.

The Melville Project is located on the west side of Melville Peninsula at approximately 172 km northwest of Repulse Bay. Vale holds prospecting permits and claims, issued by Aboriginal Affairs Northern Development Canada (AANDC) for the property. Vale is also applying for a land use permit from AANDC and a land and water use permits from the Kivalliq Inuit Association and Qikiqtani Inuit Association.

Please find enclosed:

- completed application form and questionnaire;
- Appendix A – Non-technical Project Summaries;
- Appendix B – Site Maps;
- Appendix C – Additional Information;
- Appendix D – Plans Associated with the Application;
- Appendix E – Remote Camp Information;
- Appendix F – Golder Authorization Letter;
- Appendix G – Evidence of Registration of the Company Name; and
- application fees.

The application fees were calculated as follows:

- Type B Water Licence application = $30;
- Water use fees = $30; and
- Total application fee = $30 + $30 = $60

Please provide Golder Associates with a receipt for application and water use fees.

If you have any questions regarding the enclosed application, please contact me at 905-403-2548 or by email at Jason Rickard@vale.com. Also, Vale has authorized Golder Associates to communicate on our behalf with the Nunavut Water Board regarding the water licence application. Please contact Sarah Gagné with Golder Associates in Edmonton at 780-930-8654 or by email at sarah_gagne@golder.com.

Regards,

Danielle Leger
Administrative Supervisor for,
Vale Exploration Canada Inc.

Jason Rickard, P.Geo.
Senior Geologist
Vale Exploration Canada Inc.

CC: Sarah Gagné, Golder Associates
Brian Aglukark, Nunavut Planning Commission

General Water Licence Application
(Application for a new Water Licence)

Document Date: May 2011

Application Submission Date:
02/09/2012
Month/Day/Year

P.O. BOX 119
GJOA HAVEN, NUNAVUT
XOB 1J0
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NUNAVUT IMALIRIYIN KATIMAYIT
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

DOCUMENT MANAGEMENT

Original Document Date: April 2010

DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 4	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		

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GENERAL WATER LICENCE APPLICATION
(APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: *Guide to Completing and Submitting a Water Licence Application for a New Licence* for more information about this application form.
dsf

LICENCE NO:
(for NWB use only)

1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address)

Jason Rickard, P.Geo.
Vale Exploration Canada Inc.(Vale)
Highway 17 West
Copper Cliff, ON
P0M 1N0

Phone: 905-403-2548
Fax: 705-682-8243
e-mail: Jason.rickard@vale.com

2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address)

Sarah Gagné, P.Eng
Golder Associates
#300, 10525 – 170 St
Edmonton, AB T5P 4W2

Phone: 780-930-8654
Fax: 780-483-1574
e-mail: sarah_gagne@golder.com
(Authorization letter attached.)

3. NAME OF PROJECT (including the name of the project location)

Melville Project, Melville Peninsula, NU

4. LOCATION OF UNDERTAKING

Project Extents

NW:	Latitude: 68°39'20"N	Longitude: 86°30'35"W
NE:	Latitude: 68-°37'37"N	Longitude: 83°51'25"W
SW:	Latitude: 67°25'25"N	Longitude: 86°32'07"
SE:	Latitude: 67°23'48" N	Longitude: 84°1'11"W

Camp Location(s)

Latitude: (68 ° 20 ' 38 " N)	Longitude: (85 ° 43 ' 57 " W)**
Latitude: (68 ° 14 ' 03 " N)	Longitude: (85 ° 27 ' 6 " W)
Latitude: (68 ° 9 ' 57 " N)	Longitude: (85 ° 47 ' 22 " W)
Latitude: (68 ° 14 ' 18 " N)	Longitude: (85 ° 37 ' 31 " W)

Vale is proposing to have a camp to support an annual prospecting, geophysics and drilling program from 2012 - 2017. A camp site at Mackar Inlet/ CAM-5** is preferred and Vale is currently working on permissions from the Government of Canada. If CAM-5 is not an option, three other potential camp locations have been selected based on desktop mapping. Immediately prior to the summer program in 2012, a camp location will be selected in the field and the location will be recorded and provided in the annual report.

5. MAP - Attach a topographical map, indicating the main components of the undertaking.

See Appendix B.

NTS Map Sheet No.: 46M, 46N, 46O-P, 47A, 47B02,07
Map Name: Lefory Bay, Miertsching Lake, Barrow River, Hall Lake, Committee Bay (Folster Lake, Mackar Inlet)
Map Scale: NTS map scale: 1:250,000. Figures 1 and 2, scale shown on figures (Appendix B).

6. NATURE OF INTEREST IN THE LAND - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

Sub-surface

☒ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)
Date (expected date) of issuance: __pending_____ Date of expiry: _____

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

Surface

X Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _pending_____ Date of expiry: _____

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: _____Date of expiry: _____

X IOL Authorization from Kivalliq Inuit Association (KivIA)
Date (expected date) of issuance: _pending_____ _Date of expiry: _____

X IOL Authorization from Qikiqtani Inuit Association (QIA)
Date (expected date) of issuance: _pending_____ Date of expiry: _____

☐ Commissioner's Land Use Authorization
Date (expected date) of issuance: _____ Date of expiry: _____

X Other: Please see attached Appendix C _____

Date (expected date) of issuance: __Feb 1, 2011_ Date of expiry: _Jan 31, 2014

8104, 8105
Date (expected date) of issuance: __Feb 1, 2011_ Date of expiry: _Feb 1, 2014

Name of entity(s) holding authorizations:
_____

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

Indicate the land use planning area in which the project is located.

☐ North Baffin
☐ South Baffin
☐ Akunniq
☒ Keewatin
☐ Sanikiluaq
☐ West Kitikmeot

Is a land use plan conformity determination required?

☒ Yes ☐ No
Please see attached Appendix C

If Yes, indicate date issued and attach copy

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Is an Article 12 Part 4 screening determination required?

X Yes ☐ No

If Yes, indicate date issued and attach copy __pending, Project will be forwarded to NIRB by AANDC_____
If No, provide written confirmation from NIRB confirming that a screening determination is not required.

9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.

Project Description can be found in Appendix A. Site maps can be found in Appendix B.

10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.

Vale analyzed different methods for waste disposal and determined that following the Government of Nunavut, Environmental Guideline for Burning and Incineration of Solid Waste would result in the least environmental impact to the site.

11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.

☐ Industrial ☐ Agricultural
X Mining and Milling (includes exploration/drilling/exploration camps)
☐ Conservation
☐ Municipal (includes camps/lodges) ☐ Recreational
☐ Power ☐ Miscellaneous (describe below):
_____

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings.

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your application.

☐ Hydrostatic Testing
☐ Tannery
☐ Tourist / Remote Camp
☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil
☐ Onshore Oil and Gas Exploration Drilling
X Mineral Exploration / Remote Camp
☐ Advanced Exploration
☐ Mine Development
☐ Municipal
☐ General Water Works
☐ Power

12. **WATER USE -** Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.

X To obtain water for camp/ municipal purposes
☐ To obtain water for industrial purposes
☐ To cross a watercourse
☐ To alter the flow of, or store water
☐ To divert a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
X Other: Diamond drilling_

13. **QUANTITY AND QUALITY OF WATER INVOLVED -** For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.

The water sources for the drill locations have not been identified as the drill locations have not been selected. The camp water source will be from one of the unnamed lakes adjacent to one of the proposed camp locations

Name of water source(s) (show location(s) on map):
To be determined

Describe the quality of the water source(s) and the available capacity: _
To be determined

Provide the overall estimated quantity of water to be used:
100 m^3/day

Provide the estimated quantity(s) of water to be used from each source:
To be determined

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)
5 m^3/day for camp and 95 m^3/day for drilling.

Describe the method of extraction(s):
Submersible pump fitted with a screen to prevent the entrapment of fish

Estimated quantity(s) of water returned to source(s) ___0_____ m^3/day

Describe the quality of water(s) returned to source(s): _N/A_____

14. **WASTE** – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

X Sewage
X Solid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Animal Waste
☐ Other (describe): _____

X Waste oil
X Greywater
☐ Sludges
X Contaminated soil and/or water

15. **QUANTITY AND QUALITY OF WASTE INVOLVED** – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Sewage	Raw sewage	30 people for three to four months	Pacto toilet, then incinerated	Sewage will be held in the Pacto toilet then incinerated in the camp two stage incinerator. Ash from the incinerator will be packaged and back-hauled to Hall Beach or Repulse Bay.
Greywater	Domestic wastewater from camp, excluding sewage	Greywater generated will equal the volume of water used for the camp 5 m^3/day	All soaps and cleaners used in camp will be non-toxic and biodegradable.	All grey water will be directed to a sump or natural depression at a minimum of 30 m any water body.
Solid waste (combustible)	Combustible solid waste, paper products, paperboard packaging, untreated wood, food wastes and food packaging	30 people for three to four months, generated 10 m^3 for three to four month program.	Burned in a two stage incinerator at camp	Bottom ash from a two stage incinerator at camp will be backhauled to Hall Beach or Repulse Bay.
Solid waste (non-combustible)	Non-combustible waste including bulky items/scrap metal	It is anticipated that very little will be generated.		Back hauled to Hall Beach or Repulse Bay for disposal at the Hamlet landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal.
Waste Oil	Waste oil from drill maintenance	Small quantities <20 L		Waste oil will be packaged in sealed plastic containers, clearly labeled and backhauled appropriate facility(Yellowknife)
Contaminated Soil and/or Water	From diesel or Jet B spills	Hopefully none.		All contaminated soil, snow or water will be collected and stored in empty 205 L drums. The drums will be backhauled to Hall Beach, depending on the level of contamination may be disposed for treatment at the Hamlet landfill or may be shipped south for disposal at an approved facility.

16. **OTHER AUTHORIZATIONS** – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:

Authorization: _None_____

Administering Agency: _____

Project Activity: _____

Date (expected date) of issuance: _____ Date of expiry: _____

17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES - Describe direct, indirect, and cumulative impacts related to water and waste.

The proposed Melville project will have minimal environmental impact. Vale has identified the following project activities with the potential to impact the environment: fuel storage, drilling and the potential camp. The potential impacts, mitigation measures and clean up procedures for fuel storage are described in the Spill Contingency Plan (Appendix D).

The potential environmental impacts from drilling include; the improper disposal of drill water, cuttings and used drill additives. The potential impacts to the environment are erosion from drill water and cuttings if they are not directed to a natural depression or sump, increased turbidity in a watercourse if the drill water and cuttings are disposed directly into a water body and potential contamination to the vegetation and soil if toxic drill additives are used.

For the camp, potential environmental impacts include contamination of the soil, vegetation and water from sewage and grey water associated with the camp, solid waste, including food wastes, attracting wildlife and impact on the tundra from the footprint of the camp.

To mitigate potential environmental impacts, Vale will dispose of all drill waste, including water, chips, muds and salts ($CaCl_2$) in any quantity or concentration, from land-based drilling in a properly constructed sump or an appropriate natural depression located at least 30 meters from any adjacent water body. All sumps/natural depressions will be backfilled when drilling the hole is complete. Vale will use only non-toxic drill additives.

The preferred camp location is the former DEW line site CAM-5, Mackar Inlet (68°20'38"N 85°43'57"). This location was selected because there is an existing airstrip and the site has been previously disturbed. However should this not be possible three other camp locations (Camp1 – 68°14'3"N, 85°27'6"W; Camp 2 –68°9'57"N, 85°47'22"W; Camp3 – 68°14'18"N, 85°37'31"W) are proposed based on satellite imagery and a final location will be chosen based on field evaluation. Vale will keep the footprint of the camp as compact as possible. All food wastes and burnable solid waste will be incinerated in a two stage process recommended in the Government of Nunavut, Environmental Guideline for Burning and Incinerating Solid Waste (GN 2010). All non-burnable, non-hazardous solid waste will be packaged and removed from the site to be disposed at the landfill in Hall Beach/ Repulse bay. All sewage will be contained on site in Pacto toilets and then incinerated in a two stage system. All grey water generated by a camp will be directed to a sump or natural depression at a minimum of 30 m from any water body.

Based on Nunavut Planning Commission interactive maps (accessed February 2012) southern claims overlap with WASI caribou calving areas, drilling and other exploration activities will not occur in this area of overlap (see Figure 1, Appendix B) during calving (June) if cows and calves are present within 1 km of project activities. In this area of the barrenlands only small family groups move through the area instead of big herds that are typical further south.

In addition to the mitigation measures listed above, Vale proposes the following:

- Vale is planning on corresponding with members of the Hunters and Trappers Association from

Hall Beach, Igloolik, Repulse Bay and Kugaaruk prior to the exploration activities in 2012.

- Vale will hire 4-5 Inuit, preferable from one of the communities listed above, as general assistants and wildlife monitor.
- A local wildlife monitor on site at all times.

18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER

Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.

Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.

No other known persons or properties may be adversely affected by the proposed undertaking.

19. INUIT WATER RIGHTS

Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).

No substantial affect to the quality or quantity of flow of waters through Inuit Owned Land will result from the Project. A portion of the property is located on Inuit Owned Land, therefore Vale is currently applying to access land and use water on IOL.

20. CONSULTATION – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.

Vale is planning varying levels of community consultation over the course of the project (2012-2017). The Hunters and Trappers Association in Hall Beach, Igloolik, Repulse Bay and Kugaaruk, as well as the Qikiqtani Inuit Association (QIA) and the Kivalliq Inuit Association (KIA) will be contacted this year and as the project progress Vale will meet with the various stakeholders.

21. SECURITY INFORMATION

Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.

Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut,* Indian and Northern Affairs Canada, 2002.

Vale estimates the financial security for the project to be $150,000.

22. FINANCIAL INFORMATION

Provide a statement of financial responsibility.

If the applicant is a business entity, provide a list of the officers of the company.

Danielle Leger
Caroline Thomas
Kerry O'Reilly

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

The evidence of registration of the company name can be found in Appendix G.

23. STUDIES UNDERTAKEN TO DATE - List and attach copies of studies, reports, research, etc.

There has been Government of Canada geological surveys in the area recently under the GEM program .

24. PROPOSED TIME SCHEDULE – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

Operation
Proposed Start Date: 04/2012 (month/year) Proposed Completion Date: 12/2017 (month/year)

Closure
Proposed Start Date: _____ (month/year) Proposed Completion Date: ____ (month/year)

Post - Closure
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

For each applicable phase of development indicate which season(s) activities occur.

Construction
☐ Winter X Spring X Summer ☐ Fall ☐ All season

Operation
☐ Winter ☐ Spring ☐ Summer ☐ Fall X All season

Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall X All season

Post - Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall X All season

In 2012 Vale proposes to mobilize to the site in the summer to conduct the prospecting and drilling program then do a seasonal shutdown as per the Closure and Restoration Plan following the program.

Vale intends to carry out a prospecting and drilling program every summer from 2012 to 2017. Depending on the results, Vale may decide to do a winter drilling program during that time.

25. PROPOSED TERM OF LICENCE

Number of years (maximum of 25 years): _____5_____ years

Requested Date of Issuance: April / 2012_ (month/year) Requested Expiry Date: ___December/2017___ (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

26. ANNUAL REPORTING – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

Vale will use the NWB Standardized Form for Annual Reporting.

27. CHECKLIST – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☐ Yes X No If no, date expected _____February 2012

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☐ Yes X No If no, date expected ____February 2012_____

Completed General Water Licence Application form.

X Yes ☐ No If no, date expected _____

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

X Yes ☐ No If no, date expected _____

English Summary of Application.

X Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun Summary of Application.

X Yes ☐ No If no, date expected _____

Application Fee of $30.00 CDN (Payee Receiver General for Canada).

X Yes ☐ No If no, date expected _____

Water Use Fee Deposit of $30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

X Yes ☐ No If no, date expected _____

28. SIGNATURE

Name (Print)	Title (Print)	Signature	Date
Danielle Léger	Administrative Supervisor		Feb. 10, 2012